Indiana HIV/STD OASIS Project

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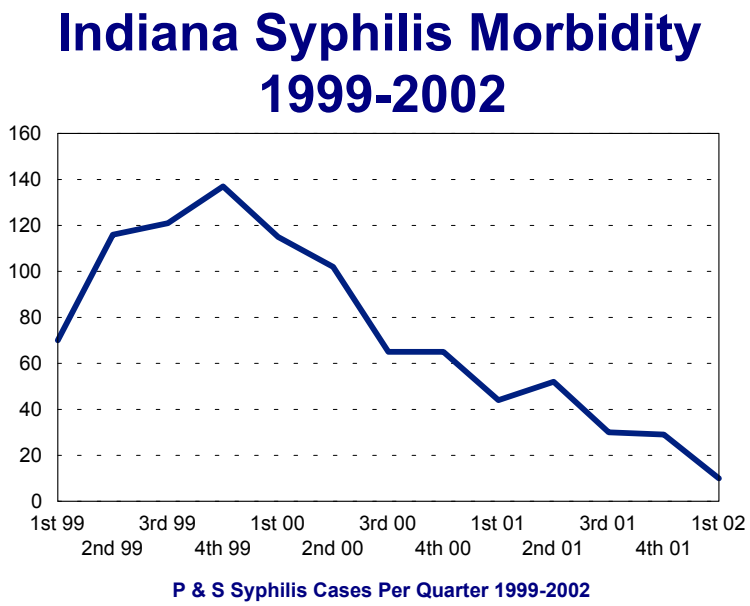
In November 1999, the Indiana State Department of Health (ISDH) STD program and the HIV/AIDS surveillance program received of a Centers for Disease Control and Prevention (CDC) grant entitled ***Outcomes Assessment Through Systems of Integrated Surveillance (OASIS)***. The purpose of the grant was to support disease prevention and program planning through the integration of management and analysis of STD and HIV/AIDS surveillance data through a blinded match. The activities were proposed to assist ISDH with the implementation of HIV/AIDS and STD risk profiles in public health and other community based prevention/intervention programs.

The concept of combining STD and HIV case data was discussed with the HIV Prevention Community Planning Group (CPG) and the Stamp Out Syphilis Coalition (SOS) of Marion County. The CPG is an advisory group to the ISDH HIV Prevention Grant. The SOS is a group of 35 community representatives that works closely with ISDH and the Marion County Health Department to eliminate syphilis as a health threat to Marion County citizens. These two citizens groups were assured that the activity would take place in a double-blinded data match so that neither HIV nor STD program personnel were exposed to their program partner's identity through a double-blinded data match. Both groups provided letters of support for this project.

Behavioral risk data have been collected for HIV/AIDS cases since 1982. There are over of 11,000 HIV/AIDS case reports with accompanying behavioral risk data entered into the HIV/AIDS Reporting System (HARS) database software. Syphilis case behavioral information is collected in the STDMIS database. Over 64,000 STD cases are contained in the 1999 through 2001 database, although risk factors are only recorded for syphilis infections.
Data from before and after the current syphilis outbreak in Marion County were analyzed to identify risk behaviors as well as co-infection rates. Behavioral risk data were to be used to design behavioral interventions and determine common risk behaviors in areas where co-infection is more common. The HIV surveillance records from 1982 through 2001 were compared to STD morbidity reports from the past three years. There were 253 matches identified as follows: 74 chlamydia cases, 132 gonorrhea cases, and 47 syphilis (all stages) cases.

The HARS database was examined from 1982 through the present. The STDMIS data examined cases from 1999 (when behavior risks were added to the data base) through 2001. Therefore, the data indicate that most co-infections involve patients who become infected with an STD after HIV diagnosis (80%). The following diseases account for those coinfections: 24% of chlamydia infections acquired before HIV, 25% of gonorrhea infections acquired before HIV, and 10% of syphilis infections acquired before HIV. Marion County accounted for 74% (35 of 47) syphilis/HIV matches. This was an expected finding due to the ongoing syphilis outbreak in Marion County during this period. The Marion County STD Program has been using a risk assessment form tailored to the analysis needs for the outbreak. This risk assessment form was adopted for statewide use in 2000.
Statewide, the number of matches for early syphilis cases was constant even though syphilis morbidity cases decreased from 621 in 1999 to 526 in 2000 to 272 in 2001. The number of cases of HIV co-infection was 15 in 1999 and 16 in 2000 and 2001. Figure 1 shows the data for Primary and Secondary (Infectious) syphilis for the years 1999 through 2000.

Figure 1.



One hundred and sixty one (64%) of all matches occurred with patients residing in Marion County. Of the 47 syphilis co-infections reported in Indiana, 35 (74%) were reported as residents of Marion County. Because a majority of HIV/AIDS patients already lived in or moved into Indianapolis shortly after their diagnosis, subsequent STDs would occur in greater numbers there.

There were 12 persons subsequently diagnosed as HIV infected who had previously acquired syphilis. Six of the seven females were white females in the same zip codes but not in the "hot zone."* These cases represent one half of all HIV cases diagnosed after a syphilis infection and 13% (6 of 46) of all white females diagnosed with early syphilis during the three-year period. There were 4 black males, 1 white male, and 6 white females and 1 black female in this group. Ten concurrent diagnoses were related to non-injection drug use.

The risk factors for the largest grouping of subsequently infected HIV persons (six white females) were as listed.

- >1 sex partner in last 90 days
- In the Marion County Jail lock-up while infectious
- Used condoms with pickups only
- Sex with a 'crack' user•
- Sex with a male
- "Hot zone" linked*

The "hot zone" is an area of four zip codes (46205, 46208, 46218, and 46226) that were the addresses of 65% of all syphilis cases during 1999 – 2001.

The above factors demonstrate the value of syphilis screening in city/county lock ups. The positive members of this subgroup would all have been detected while in lock up if screening was available and accepted.

There were 6 Men Who Had Sex with Men (MSM) in HARS who had no risk identified in the STD/MIS. One MSM in STD/MIS had no risk identified in HARS. This indicates that in STD clinic settings risk reduction messages and partner elicitation and subsequent notification of an exposure have not been initiated during encounters with gay or bisexual men in Marion County.

Data from 1993 through 1998 can be compared, although cases documentation other than morbidity reporting did not occur during that time. The comparison will offer a more balanced picture of HIV/STD co-infection prior to 1999.

The ISDH STD and HIV Surveillance Programs will continue this double-blinded analysis in future years to obtain the best data for HIV co-infection rates.